

4/3/04

CLAIMS

1. An ankle-foot orthosis (32) comprising: a resiliently flexible sock-like structure (34) enveloping, in use, at least a portion of a patient's lower leg in the vicinity of the ankle and at least a portion of the plantar and dorsal aspects (46,48) of a patient's foot, characterised in that said sock-like structure (34) is of silicone and in that said orthosis provides, in use, a predetermined substantially constant resistance to planterflexion of the patient's foot.
2. An orthosis according to Claim 1, comprising a reinforcing means (38,56) for providing a further resistance to planterflexion of the patient's foot.
3. An orthosis according to Claim 2, wherein the reinforcing means comprises a length of tape (38), the ends of the tape being joined together to form a figure-of-eight passing under the instep, behind the ankle (40,42) and crossing on the dorsal aspect (48) of the foot.
4. An orthosis according to Claim 2, wherein the reinforcing means comprises a rib (56) running along at least a portion of the dorsal aspect (48) of the foot and substantially midway between the medial malleolus (40) and the lateral malleolus (42).
5. An orthosis according to Claim 4, wherein the rib (56) is of plastics.
6. An orthosis according to Claim 4, wherein the rib (56) is of silicone.
7. An orthosis according to Claim 4, wherein the rib (56) is of polypropylene.
8. An orthosis according to Claim 4, wherein the rib (56) is of ortholene.
9. An orthosis according to Claim 4, wherein the rib (56) is of carbon fibre.
10. An orthosis according to any preceding claim, wherein the reinforcing means

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(38,56) has a greater resilience than the sock-like structure (34).

11. An orthosis according to any preceding claim, comprising an insertion slit extending substantially midway between the medial malleolus (40) and the lateral malleolus (42) at the back of the ankle towards the calcaneum, means (50,54) being provided to securely close the slit once the patient's foot has been inserted in the orthosis.

12. An orthosis according to Claim 11, wherein the closing means comprises a mechanical hook and loop fastener (50), a set of hoops or hooks being provided adjacent one edge of the slit and a corresponding set of hooks or hoops being provided on a closure member affixed to the other side of the slit, respective hooks and loops being connectable to securely close the slit.

13. An orthosis according to Claim 11, wherein the closing means comprises a zip fastener (54) secured to opposite sides of the slit.

14. An orthosis according to Claim 11, wherein the closing means comprises a set of eyelets provided on either side of the slit, the slit being closable by a lace fed through the eyelets.

15. An orthosis according to any preceding claim, wherein the orthosis envelops at least a portion of the dorsal (48) and plantar (46) aspects of the foot without enveloping the toes (49).

16. An orthosis according to any preceding claim, wherein the orthosis envelops at least a portion of the plantar aspect (46) of the foot without enveloping the calcaneum (44).

17. An orthosis according to any preceding claim, wherein the sock-like structure is of 35 shore silicone elastomer.

18. An orthosis according to any preceding claim, wherein the orthosis is skin coloured.

5 19. An orthosis according to any preceding claim, wherein the orthosis is fabricated by injection moulding.

20. An orthosis according to any of Claims 1 to 18, wherein the orthosis is stamped or pressed from sheet material.

10 21. A kit comprising a plurality of orthoses (32) according to any preceding claim, the orthoses being of varying size and shape for fitting to feet of different sizes and shapes.

15 22. A kit according to Claim 21, comprising differently coloured orthoses to allow the matching of the colour of the orthosis to the skin colour of the patient.

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